

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-20. (cancelled)

21. (currently amended): A method for preparing monodisperse biodegradable microspheres comprising the steps of:

a) preparing an emulsion comprising at least one ~~polymer~~ organic phase, which comprises an active ingredient and a biodegradable polymer dissolved in an organic solvent, and at least one aqueous phase, the viscosity of the organic phase and the aqueous phase having a ratio of from 0.1 to 10;

b) subjecting the emulsion obtained to controlled laminar shearing;

c) removing the solvent from the ~~polymer~~ organic phase;  
and

d) isolating the microspheres so obtained.

22. (currently amended): The method of claim 21, wherein the majority of the microspheres are constituted in majority by ~~[[a]]~~ the biodegradable polymer.

23. (previously presented): The method of claim 22, wherein the biodegradable polymer is selected from poly( $\alpha$ -hydroxy) acids, the aliphatic polyesters of poly( $\alpha$ -hydroxy acids), of poly( $\epsilon$ -caprolactones)-PCL, of polydioxanones - PDO, polyorthoesters, polyanhydrides, polycyanoacrylates, polyurethanes, polypeptides or poly(amino acids), modified polysaccharides, cellulose, polycarbonates, polydimethylsiloxanes and poly(vinyl acetates) and their derivatives and copolymers.

24. (previously presented): The method of claim 22, wherein the biodegradable polymer is selected from polylactic acids (PLA), and the copolymers of polylactic acid / polyglycolic acid (PLGA).

25. (currently amended): The method of claim 21, wherein the biodegradable polymer has a molecular weight of from 50 to 500 kDaltons.

26. (previously presented): The method of claim 21, wherein the organic solvent of the organic phase of the emulsion is ethyl acetate.

27. (previously presented): The method of claim 21, wherein the active ingredient is lipid-soluble.

28. (previously presented): The method of claim 21, wherein the active ingredient is water-soluble.

29. (previously presented): The method of claim 21, wherein the active ingredient is a peptide or a protein.

30. (previously presented): The method of claim 21, wherein the emulsion prepared in step (a) comprises a hydrophilic active ingredient in combination with a lipophilic active ingredient.

31. (previously presented): The method of claim 21, wherein the organic phase of the emulsion represents from 10 to 60% by weight relative to the total weight of the emulsion.

32. (currently amended): The method of claim 21, wherein the organic phase of the emulsion comprises from 1 to 50%, ~~preferably from 5 to 30% by weight of polymer.~~

33. (currently amended): The method of claim 21, wherein the organic phase of the emulsion comprises from 1 to 50%, ~~preferably from 5 to 30% by weight of active ingredient.~~

34. (previously presented): The method of claim 21, wherein the emulsion is a double emulsion.

35. (previously presented): The method of claim 21, wherein the external and/or internal aqueous phase of the emulsion contains at least one stabilizing agent and/or at least one viscosity agent.

36. (previously presented): The method of claim 21, wherein the external and/or internal aqueous phase of the emulsion contains at least one stabilizing agent and/or at least one osmolarity agent and/or at least one surfactant and/or at least one buffer agent.

37. (previously presented): The method of claim 21, wherein the step of calibration by laminar shearing is carried out in a Couette device.

38. (currently amended): The method of claim 21, wherein the step of removing the solvent from the ~~polymer~~ organic phase is carried out by extraction in water.

39. (currently amended): A method for the administration of active ingredients in the human or animal organism, comprising making use of administering the microspheres that can be obtained comprising an active ingredient and being prepared by the method according to claim 21.

40. (previously presented): The method of claim 39, wherein the active ingredient is selected from antibiotics, hypolipidaemics, antihypertensives, antiviral agents, beta blockers, bronchodilators, cytostatics, psychotropic agents, hormones, vasodilators, anti-allergics, analgesics, antipyretics, antispasmodics, anti-inflammatories, anti-angiogenics, antibacterials, anti-ulcerants, antifungals, anti-parasitics, antidiabetics, anti-epileptics, anti-Parkinsons, antimigraines, anti-Alzheimers, anti-acneics, antiglaucomic agents, anti-asthmatics, neuroleptics, antidepressants, anxiolytics, hypnotics, normothymics, sedatives, psychostimulants, anti-osteoporosis agents, anti-arthritis, anticoagulants, antipsoriasis agents, hyperglycaemics, orexigenics, anorexigenics, anti-asthenics, anticonstipation agents, antidiarrhoeals, anti-trauma agents, diuretics, myorelaxants, enuresis medicaments, erection disorder medicaments, vitamins, peptides, proteins, anticancer agents, nucleic acids, RNA, oligonucleotides, ribozymes and DNA.